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EXAMINER	
HAILEY, PATRICIA L	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/922,089
Filing Date: August 03, 2001
Appellant(s): PELLEY ET AL.

Cynthia L. Foulke
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 11, 2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims s 1-19 stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,688,845	EDEN et al.	11-1997
6,280,515	LYDZINSKI et al.	08-2001

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

Claims 1, 2, and 9-11 stand rejected under 35 U.S.C. 102(b) as being anticipated by Eden et al.

Eden et al. teach an adhesive consisting essentially of at least about 50% to less than 100% of a maltodextrin syrup, 0 to about 50% water, and a preservative. The maltodextrin is prepared from a converted or non-converted chemically derivatized starch. See col. 4, lines 23-41 of Eden et al.

The starch can be derivatized by either heat- and/or acid conversion, oxidation, phosphorylation, etherification, esterification, etc. Further, the starch is preferably derivatized before being subjected to enzyme conversion. See col. 7, lines 38-49 of Eden et al.

The adhesive may also contain additional ingredients such as salts (to cause hygroscopic blocking) and humectants (to reduce the adhesive's initial viscosity). See col. 7, lines 5-18 of Eden et al.

The property of flow viscosity is considered to be inherently read upon by the teachings of Eden et al., as this reference reads upon the claim limitations in their present form.

In view of these teachings, Eden et al. anticipate claims 1, 2, and 9-11.

Claims 1-7 and 10-19 stand rejected under 35 U.S.C. 102(e) as being anticipated by Lydzinski et al.

Lydzinski et al. teach a foamable adhesive comprising a polysaccharide modified with an alkyl succinic anhydride and water. See col. 2, lines 21-26 and lines 54-65 of Lydzinski et al.

Examples of the polysaccharide which can be modified include starches, either native, converted, or derivatized. See col. 2, lines 27-62 of Lydzinski et al.

The adhesive may also contain additives such as humectants (such as calcium chloride and corn syrup) and synthetic resins. See col. 3,lines 1-20 of Lydzinski et al.

The adhesive of Lydzinski et al. is useful in applications such as paper laminating, surface coatings, and other adhesive applications. See col. 3, lines 33-39 of Lydzinski et al. This disclosure is considered to read upon the limitations of claims 12-15.

The property of flow viscosity is considered to be inherently read upon by the teaching of Lydzinski et al., as this reference reads upon the claim limitations in their present form.

In view of these teachings, Lydzinski et al. anticipate claims 1-7 and 10-19.

Claim Rejections - 35 USC § 103

Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eden et al.

Eden et al. is relied upon for its teachings in the above 102(b) rejection. While this reference teaches at col. 7, lines 38-45 that the starch is preferably chemically derivatized prior to enzyme conversion (i.e., heat- and/or acid conversion, oxidation, etc.), one of ordinary skill in the art would expect that these two steps are interchangeable, i.e., that the starch can be enzymatically converted prior to being derivatized, as Eden et al. do not require that these two steps be performed in any specific order.

Reversing the order of steps in a process does not impart patentability when no unexpected result is obtained. Ex parte Rubin (POBA 1959) 128 U.S.P.Q. 440, Cohn v. Comr. Pats. (DCDC 1966) 251 F Supp 378, 148 U.S.P.Q. 486.

(11) Response to Arguments

Appellants' Argument A

In response to Appellants' arguments that Eden et al. fail "to teach testing a starch at intervals during the conversion process, for flow viscosity, and to continue conversion until such a time as a desired flow viscosity is obtained", it is the Examiner's position that the Claims under Appeal in their present form are not directed to such testing. The Claims under Appeal are drawn, inter alia, to a water-based adhesive, said adhesive comprising a converted starch derivative having a specified flow viscosity range.

In the broadest interpretation, the Claims under Appeal are basically drawn to an adhesive. Eden et al. disclose an adhesive comprising maltodextrin "**prepared from a converted or non-converted chemically derivatized starch**" (emphasis by Examiner). Although Eden et al. is silent with respect to the flow viscosity of Patentees' adhesive, one of ordinary skill in the art would expect the adhesive of Eden et al. to exhibit a flow viscosity comparable to that recited in the Claims under Appeal, absent the showing of convincing evidence to the contrary. Appellants have not presented any convincing evidence that the adhesive of Eden et al. does not exhibit a flow viscosity of between about 7 and about 20 seconds.

Additionally, while Appellants' Disclosure discusses how the flow viscosity of the claimed adhesive is obtained, and that "the conversion process is preferably

allowed to continue until the flow viscosity of the converted starch derivative is from about 7 to about 12 seconds," (page 9, lines 1-20), Appellants' Disclosure does not specifically disclose periodic "testing" of the flow viscosity during the conversion process. The Disclosure also does not exemplify a length of time for the conversion process that would result in achieving Appellants' flow viscosity.

Appellants' argument that the "examiner's assertion that all converted starch derivatives will inherently possess a flow viscosity of from about 7 to about 20, regardless of the starch, the type of derivation, the degree of derivatization, the type of conversion used, the extent of conversion, etc., will inherently have the same characteristics, e.g., performance properties, and the like, is without merit", has been considered, and is deemed without merit itself. The converted starch derivative of Eden et al. is considered to compositionally be the same as that recited in the Claims under Appeal. Because Eden et al. teach a derivatized and converted starch reading upon the Claims under Appeal, in addition to teaching an adhesive reading upon the Claims under Appeal, any attending properties expressly or not expressly exhibited by Appellants' claimed invention would inherently be exhibited by Eden et al., absent the showing of convincing evidence to the contrary.

It is well settled that when a claimed composition appears to be substantially the same as a composition disclosed in the prior art, the burden is properly upon the applicant to prove by way of tangible evidence that the prior art composition does not necessarily possess characteristics attributed to the CLAIMED composition. In

re Spada, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Circ. 1990); In re Fitzgerald, 619 F.2d 67, 205 USPQ 594 (CCPA 1980); In re Swinehart, 439 F.2d 2109, 169 USPQ 226 (CCPA 1971). Further, proof the claimed compounds possess an unobvious or unexpected beneficial property does not, automatically, establish patentability. In re Finley (CCPA 1949) 174 F2d 130, 81 U.S.P.Q. 383.

A single variance in properties will not necessarily tip the balance in favor of patentability. In re De Montmollin, et al. (CCPA 1965) 344 F2d 976, 145 U.S.P.Q. 416. In this instance, the "single variance" is the property of flow viscosity. Eden et al. disclose a converted, derivatized starch. There is no apparent reason that the starch of Eden et al. would not exhibit a flow viscosity ranging between 7 and 20.

Appellants' Arguments B and B1

(These arguments are combined because Argument B1 is directed to a more narrow flow viscosity range (Claim 7 under Appeal)).

While Lydzinski et al. do not "teach testing the starch,...", Appellants' claims are not directed to such testing, nor are the claims directed to any of the unexpected benefits or properties exhibited by Appellants' claimed adhesive.

In response to Appellants' arguments that Lydzinski et al. fail "to teach a water-based adhesive comprising a converted starch derivative", Lydzinski et al. at col. 2, lines 22-65 disclose a "polysaccharide-based adhesive" (said polysaccharide including **starch**, col. 2, lines 27-29, emphasis added) containing from 10 to 97

percent by weight water (col. 2, lines 63-65). As such, the adhesive of Lydzinski et al. is considered "water-based". "

Appellants have not provided any convincing evidence that the adhesive of Lydzinski et al. does not exhibit a flow viscosity comparable to that respectively claimed (either in Claims 1 or 7 under Appeal).

As set forth in the grounds of rejection stated hereinabove, both Eden et al. and Lydzinski et al. teach water-based adhesives comprising converted derivatized starch derivatives and other components (humectants, etc.) that read upon that respectively claimed. These references also teach the types of conversion and derivatization (heat- and/or acid conversion, oxidation, etc.) reading upon that respectively claimed.

Appellants' Argument B2

Appellants' arguments that Lydzinski et al. do not teach the use of the claimed adhesive "in the manufacture of articles, in particular, in the manufacture of envelopes, or envelops" are not persuasive, because Lydzinski et al. at col. 3, lines 33-39 disclose that Patentees' adhesive is useful in paper laminating (considered to include envelopes), tissue and towel manufacture, personal care applications, cigarette making, bottle labeling, surface coatings, and other adhesive applications. This disclosure is considered to read upon the term "articles". Further, Eden et al.

at col. 1, lines 5-19 disclose that adhesives are commonly utilized in the productions of envelopes, stamps, wallpaper, tapes, labels, etc.

Appellants' Argument C

Appellants' arguments regarding Eden et al. with respect to Claim 1 under Appeal are as addressed in the response to Appellants' Argument A. With respect to Claim 8 under Appeal, which recites that "the starch is derivatized following the conversion thereof", Eden et al. at col. 7, lines 38-49 disclose that chemical derivatization of the starch prior to conversion is *preferable* (emphasis by Examiner), but not *required.* While this is contradictory to Claim 8 under Appeal, one of ordinary skill in the art would expect that these two steps are interchangeable, i.e., that the starch can be enzymatically converted prior to being derivatized, as Eden et al. do not require that these two steps be performed in any specific order. It is well known that reversing the order of steps in a process does not impart patentability when no unexpected result is obtained. Ex parte Rubin (POBA 1959) 128 U.S.P.Q. 440, Cohn v. Comr. Pats. (DCDC 1966) 251 F Supp 378, 148 U.S.P.Q. 486.

Further, Appellants' Disclosure at page 4, lines 16-19 state:

"In preparing the converted starch derivative for use in the practice of the invention, starch may be derivatized and then converted, or converted and then derivatized. Use of the term 'converted starch derivative' encompasses both."

Thus, there appears to be no specific preference as to which modification is performed first, either derivatization or conversion, so long as both modifications are performed.

Argument D

In response to Appellants' arguments that neither Eden et al. nor Lydzinski et al. "suggest or provide any motivation to use a modified starch derivative having a flow viscosity between about 7 and about 20 in an adhesive", the Examiner maintains that Appellants' claimed invention is drawn to an adhesive comprising a converted starch derivative, and articles and/or envelopes comprising said adhesive. Eden et al. and Lydzinski et al. have been shown to teach adhesives comprising the same components as those respectively claimed, and provide motivation to employ Patentees' adhesives in articles such as envelopes.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Appellants' arguments that Eden et al. and Lydzinski et al. do not teach testing a starch for flow viscosity at intervals during the conversion process, the desirability of flow viscosity, etc., are not persuasive. The Claims under Appeal are merely directed to an adhesive comprising a converted starch derivative, which is expressly taught by Eden et al. and Lydzinski et al. It is the claims that define the claimed invention, and it is claims, not specifications, that are anticipated or unpatentable. Constant v. Advanced Micro-Devices, Inc., 7 U.S.P.Q. 2d 1064.

Appellants' reference to Chiu et al. (U. S. Patent No. 5,599,569) is duly noted.

For these reasons, Appellants' arguments are not persuasive.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Patricia L. Hailey/plh
September 2, 2004

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